G501975PCE9901

USER MANUAL

PCI Express Multi I/O Card

VER:1.0

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1. Features

1). PCI Express

. Fully compliant with PCI Express Base Specification, Revision 1.0a
. PCIe Multi Function Peripheral controller with x1 Lane Interface
. Support for D1, D2, D3hot and D3cold
. Utilizes 100-MHz Differential PCI Express Common Reference Clock
. Support PCIe Power Management

Please note some sections of the manual are only applicatable for the production that have such functions.

2). Serial Port

. Four 16c450/550/Extended 550 compatible UARTs
. Supports RS232, RS485 & RS422 modes
. Bi-directional speeds from 50 bps to 16Mbps/Port
. Full Serial modem Control
. Supports Hardware, Software flow control
. 5,6,7,8 and 9-bit Serial format support
. Even,Odd,None,space & Mark parity supported
. Custom BAUD Rates supported with external clock or by programming internal PLL
. On Chip 256 Byte depth FIFOs in Transmit, Receive path of each Serial Port
. Supports remote wakeup and power management features
. Serial Port transceiver shutdown support
. Support Slow IrDA on all Serial Ports

3). IEEE1284 Parallel Port

. Multi-mode IEEE1284 compliant controller(SPP,PS2,EPP,ECP)
. Faster data rates up to 1.5Mbps for parallel port

2. Installing the PCI Express I/O card to your computer

1). Turn off your computer and all devices connected to it.
2). Remove the Computer's cover, Refer to your computer user's manual for more details.
3). Find an unused PCI Express's slot and remove the metal bracket. Save the bracket screw for later use.
4). Align the card horizontally with respect to the PCI slot and insert it into the slot. Once you have properly positioned the PCI Express I/O card into the slot. secure the PCI Express I/O card with the bracket screw you have saved.
5). replace the computer's cover
6). Replace the computer's cover.

3. Applications

. Serial Attached Devices
. Serial Networking/Monitoring Equipment
. Data Acquisition System
. POS Terminal & Industrial PC
. parallel/Printer Port based applications
. Add-On I/O Cards -Serial/Parallel/USB
. Embedded systems - For I/O expansion

4. Software Support

. DOS/Windows98/98e/ME
. Windows 32bit 2000/XP/2003 Server/Vista & Windows 64bit XP/2003 Server/Vista
. Linux Kernel 2.6.11 & above
. MAC 10.4 & above

1). Driver Locations

All the drivers for the Following PCI Express cards are located in these directories of the Driver CD.

:\Moschip\MCS99xx\windows\Windows_XP\Win32	*Win XP 32bit*
:\Moschip\MCS99xx\windows\Windows_XP\Win64	*Win XP 64bit*
:\Moschip\MCS99xx\windows\Windows_7\Win32	*Win 7 32bit*
:\Moschip\MCS99xx\windows\Windows_7\Win64	*Win 7 64bit*
:\Moschip\MCS99xx\windows\Vista_Win2K\Win32	*Vista/Win 2K 32bit*
:\Moschip\MCS99xx\windows\Vista_Win2K\Win64	*Vista/Win 2K 64bit*
:\Moschip\MCS99xx\Linux	*Linux*
:\Moschip\MCS99xx\Mac	*Mac*

2). Installing DOS Driver

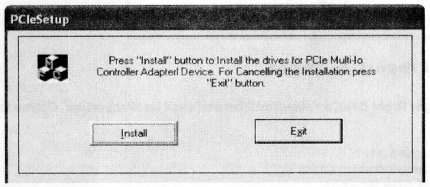
Copy "*SXDOSIN.EXE*" to your hard disk and run "*SXDOSIN.EXE*", For more Option, read "SXDOSIN.EXE /?"

5. Installing Windows2000/XP/2003Server/Vista Driver

Installing drivers for the first time:

Make sure that you have not inserted PCIe card into PCIe slot.

Run "*PCIesetup.exe*" file from the driver disk folder. You will see a window as shown below:


PCIeSetup
Press "Install" button to Install the drives for PCIe Multi-Io Controller Adapter/ Device. For Cancelling the Installation press "Exit" button.
Install
Exit

Press "**Install**" to install the driver.

When the " **Hardware Installation**" wizard prompts for Windows XP compatibility, Just click on "**Continue Anyway**".

Hardware Installation
The software you are installing for this hardware:
MosChip PCI Multi-IO Controller
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Now shutdown the PC and insert the PCIexpress card into PCIe Slot and then Switch ON. Found New Hardware wizard will start and you have to select "**No, not this time**" option.

Now select "**Install the software automatically (Recommended)**" option and press **Next** bu to continue.If the "**Hardware Installation**" wizard prompts for Windows XP compatibility, Just click "**Continue Anyway**".

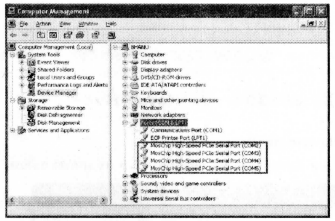
Click on "**Finish**" to complete the MosChip MCS9901 Peripheral Port installation.

Follow the same above procedure to install the remaining MCS9901 peripheral ports.

6. Verifying Driver Installation

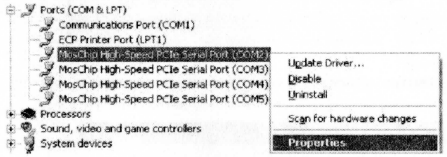
Please check the required configuration from Device Manager to confirm the proper installation.

For Example proper detection of the MCS9901 PCIe Card (4 Serial) can be confirmed by viewing the Device manager as shown below:



7. Serial Port Properties Sheet

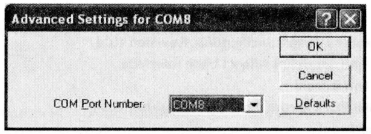
In the Device Manager Right Click on required Port and click on "Properties" Option to open the Properties page.



General TAB :
The "General" TAB provides you details about "Device Type", "Manufacturer" and "Device Status".
The "Port Settings" TAB is used to configure parameters of the Serial Port.

Bits per Second selection is used to set the default Baud rate settings.
Data bits selection will have options 4,5,6,7 and 8 data bits.
Parity selection will have Even,Odd, None, Mark and Space parity settings.
Stop bits selection will have 1,1.5 and 2 selections.
Flow Control selection will have Xon_Xoff, Hardware and None settings.

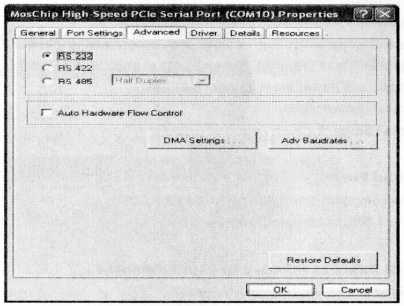
If you want to change the Port Number click on "Change Port Number" and select the required Port Number as shown below:



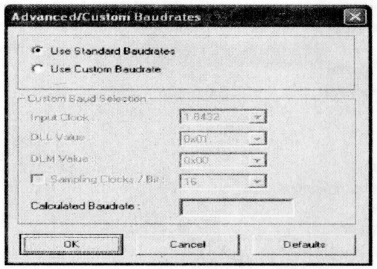
The Driver TAB shows the details of Driver Provider, Driver Release Date, Driver version is installed on your PC and Digital Signer details as shown above.

8. Serial Port Features and Mode Changes

By default every serial Port will be in RS 232 Mode.
If you want to change it into **RS 422** OR **RS 485** Mode select the appropriate Radio button as shown below:



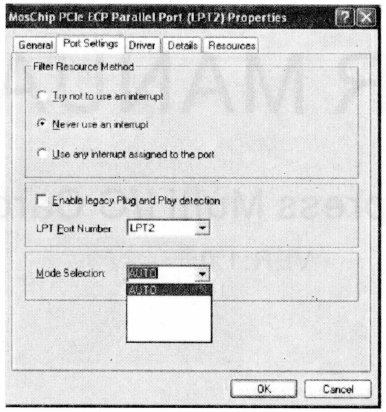
Configuring Advanced Baud rates:
To Configure Advanced Baud rates click on "Adv Baudrates" button.



By default "Use Standard Baudrates" option is Enabled.
To configure custom Baud rate select "Use Custom Baudrate".
Note: When "Use Custom Baudrate" is selected, Serial Port baudrate is independent of the value set in the Application

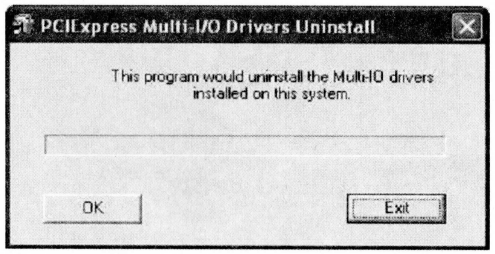
9. Parallel Port Features and Mode Changes

Parallel Port Features:
Parallel port will support SPP/CBFIFO/ECP/EPP modes. By default Parallel Port will be in AUTO mode. In this mode, Parallel port mode will be automatically configured to the required mode after handshaking with the connected device.



10. Uninstalling Drivers

To Uninstall MCS9901 drivers, run "MOSCHIP_PCIeUninst.exe" file available in the driver disk.


PCIExpress Multi-I/O Drivers Uninstall
This program would uninstall the Multi-IO drivers installed on this system.
OK
Exit

Note: Make sure that you should uninstall any previous driver before installing updated drivers.